

Shockwave therapy for the treatment of the tendinosis with subacromial impingement of the shoulder

Author:

Ana Claudia Souza (1), Flavia Arkader (1), Paulo Rockett (2), Paulo Santos (3)

Institution:

1) Cortrel (Rio de Janeiro /RJ) - E-mail: anaclaudia@cortrel.com.br, willyarkader@hotmail.com,

2) Ortosom (Porto Alegre /RS) - E-mail: rockett@ortosom.com.br,

3) Orthomaster (Sao Paulo/SP) Brazil - E-mail: prds@uol.com.br

Device and producing company:

Reflectron (HMT)

Introduction:

Overuse or repetitive stress of the upper extremity in the overhead position may be a cause of rotator cuff tendinosis. Poor vascularity and primary degenerative changes also may contribute to the development of the lesion. The studies of basic research have demonstrated that the application of ESWT produces a biological response in the tissues, including the induction of neo-vascularization associated with the increase of angiogenic growth factors. Based on this new concept of "tissue regeneration," the aim of this study was to evaluate the effectiveness and the safety of ESWT in the treatment of the tendinosis of the shoulder in three Brazilian orthopedic centers.

Methods:

From May 2002 to February 2006, 70 cases with tendinosis of the shoulder were treated - 65 patients, 5 with bilateral treatment; 24 women and 41 men. The age of the patients was between 19 and 83 years (average age = 53 years). The treatments were performed with an electrohydraulic device (REFLECTRON®). One treatment was performed on 64 cases, 4 underwent a second treatment and 2 cases underwent a third treatment (minimum interval of 90 days). The subjects were evaluated by means of a clinical evaluation according to Roles and Maudsley score and subjective outcome on Visual Analogue Scale (VAS) analysis 45, 90 and 180 days after the end of the therapy.

Results:

The study showed the efficacy and safety of ESWT were excellent in 31.4%, good in 42.9%, acceptable in 8.6%, and poor in 17.1%), 180 days after ESWT.

Discussion: Based in this new concept of "tissue regeneration," ESWT must be considered as an alternative in the treatment of the tendinosis of the shoulder which has been resistant to conventional procedures.

Conclusion:

ESWT must be considered as an alternative in the treatment of tendinosis of the shoulder before operative intervention. ESWT has the advantages of being non-invasive: no significant complications, lower operating costs, and eliminating the substantial potential risks of traditional surgical procedures.